



PROGRAM ANNOUNCEMENT

NIAC STUDENT VISIONS OF THE FUTURE

WHO: University Undergraduate Students

WHAT: Opportunity to Submit Revolutionary Aerospace Concept Ideas

WHEN: By September 15, 2003

WHERE: 3-Page Concept Description sent to NIACStudents@niac.usra.edu

HOW: Imaginative, credible ideas for aerospace systems or architectures to be implemented 10-40 years in the future can be submitted by an undergraduate student(s), endorsed by a faculty advisor, to compete for the opportunity to present a poster at the NIAC Annual Meeting to be held in Atlanta, Georgia on November 5-6, 2003. All expenses will be paid for the student(s) and advisor. (No more than 2 students per concept, please.)

SEE: <http://www.niac.usra.edu> for further program and application information.

YOU ARE THE FUTURE!! IMAGINE THE POSSIBILITIES!!!



Visions of the Future

JUST IMAGINE THE POSSIBILITIES!

Due date: September 15, 2003

The 20th century heralded breaking the bonds with Earth with controlled, powered flight and the great leap into space. To some extent, the 20th century's plateau of human accomplishment in flight and space travel was seeded over the last few hundred years by dedicated explorers of nature on a scale as large as the universe and as small as the smallest atomic particle. Gallileo, Darwin, the Wright Brothers, Einstein and many others were driven by their fascination with natural phenomena or human flight to visualize new possibilities that triggered a reinterpretation of seemingly insurmountable barriers. Our very human curiosity and fascination with the mysteries in nature and with the possibilities of exploring our cosmic neighborhood have inspired an ever-expanding search for new paradigms that will allow us to soar well beyond our current physical and intellectual constraints.

The 21st century will build on the last century's explosion of scientific creativity and discovery ranging from the atom to the cosmos. The NASA Institute for Advanced Concepts (NIAC) seeks to do its part in nurturing healthy inquisitiveness from the earliest ages, to ensure that future endeavors in flight and space benefit from new streams of fresh thought to carry on the ever-expanding search for innovation. The Universities Space Research Association (USRA), through NIAC, is eager to build a legacy of potentially revolutionary breakthroughs that will catalyze a new framework for future generations of creative innovators.

The general thrust of NIAC advanced concepts is to develop revolutionary ideas that have a potential for leaping well past the current plans and can expand the vision of NASA's long-range strategic plans. Undergraduate university students are invited to submit your advanced concept description to the *NIAC Student Visions of the Future Program* (NSVFP).

Your concept should be aimed well beyond the evolution of technical approaches that occupy current programs, and set new, **revolutionary** directions that can offer the prospect of significant and dramatic advances in aeronautics and space. Specifically, the NSVFP is seeking descriptions that are:

- ***Revolutionary, new and not duplicative of concepts previously studied by NASA,***
- ***An architecture or system,***
- ***Described in an aeronautics and/or space mission context,***
- ***Adequately substantiated with a description of the scientific principles that form the basis for the concept,***
- ***Largely independent of existing technology or a unique combination of systems and technologies.***

DON'T LET YOUR PREOCCUPATION WITH REALITY STIFLE YOUR IMAGINATION!



Your revolutionary concept may be characterized by one or more of the following attributes:

- *The genius is in the generalities, and not the details.*
- *The new idea creates a pathway that addresses a roadblock.*
- *It inspires others to produce useful science and further elaboration of the fundamental idea.*
- *It contributes to a shift in the world view.*
- *It triggers a transformation of intuition.*

To apply, electronically send a 3-page advanced concept description by September 15, 2003 (attachment file size not to exceed 200kB) to NIACStudents@niac.usra.edu.

Questions about the program can also be sent to this email address.

Your *NIAC Student Visions of the Future* concept should include:

- Introduction and Background (a general description for the application of your concept including the potential impact on future space missions)
- Description of the Proposed Aerospace System or Architecture
- Discussion of Approaches for Implementing Your Concept (brief roadmap to the future)

In addition, please provide a short bio describing your current studies and career objectives. Also, please include the name and email address for a faculty member who is informed about your concept (if you are selected by NIAC for a poster presentation of your concept, your mentor will be invited to accompany you to the NIAC Annual Meeting in Atlanta on November 5-6, 2003).

NIAC Student Visions of the Future concepts will be selected based on:

- Organization/Clarity of Presentation
- Originality
- Technical Content
- Application/Feasibility

Your dream of the future for aerospace endeavors may lead you to an all-expenses paid trip (one or two student visionaries per concept plus academic mentor) to Atlanta, Georgia, on November 5-6, 2003, for the opportunity to present a poster at the NIAC Annual Meeting. Students selected for a poster presentation in Atlanta will be awarded \$200 for poster preparation (check provided at meeting check-in). You will meet the NIAC Phase I and Phase II Fellows and see and hear their own visions of the future (see <http://niac.usra.edu/studies> for descriptions of NIAC funded studies). Judging of the posters could result in an invitation to give a talk about your concept at the NIAC Fellows Meeting to be held in Spring, 2004. For those student concepts selected by the judges for further development, a monetary award of \$500 will be provided for time and materials expended on further concept definition between the NIAC Annual Meeting and the NIAC Fellows Meeting. If selected, travel expenses will also be covered for you and your advisor to attend the Spring, 2004 meeting where you will give an oral presentation to all participants.

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